

1/21

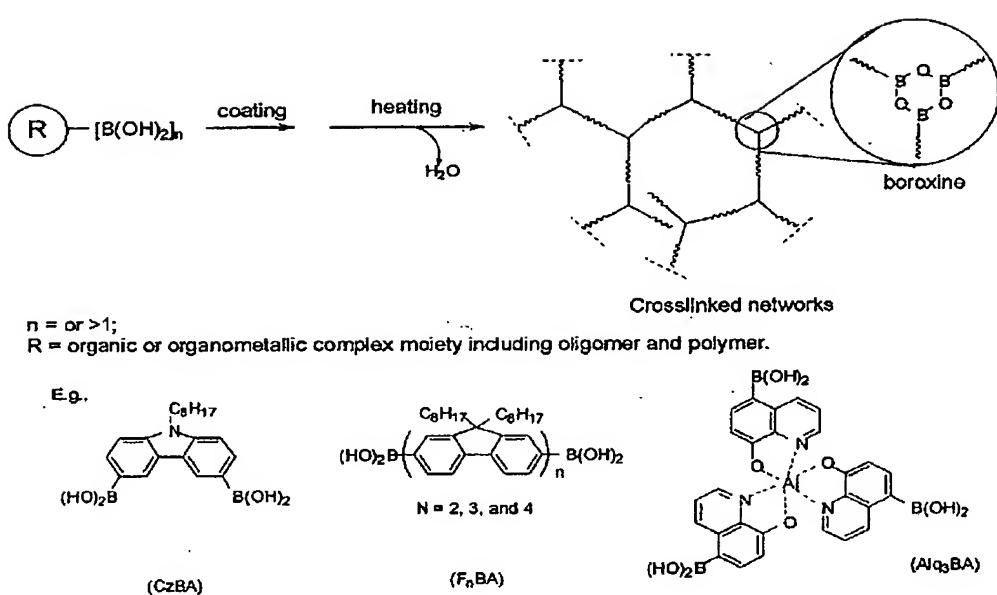


Fig. 1

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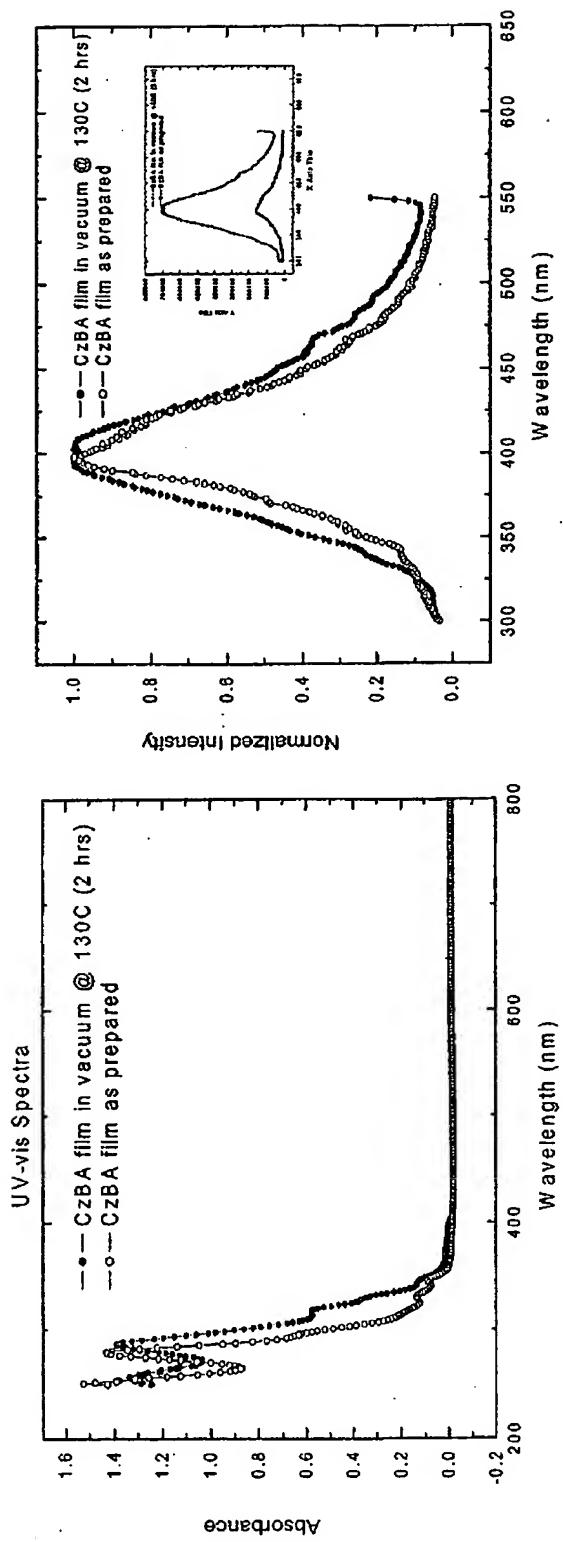


Fig. 2

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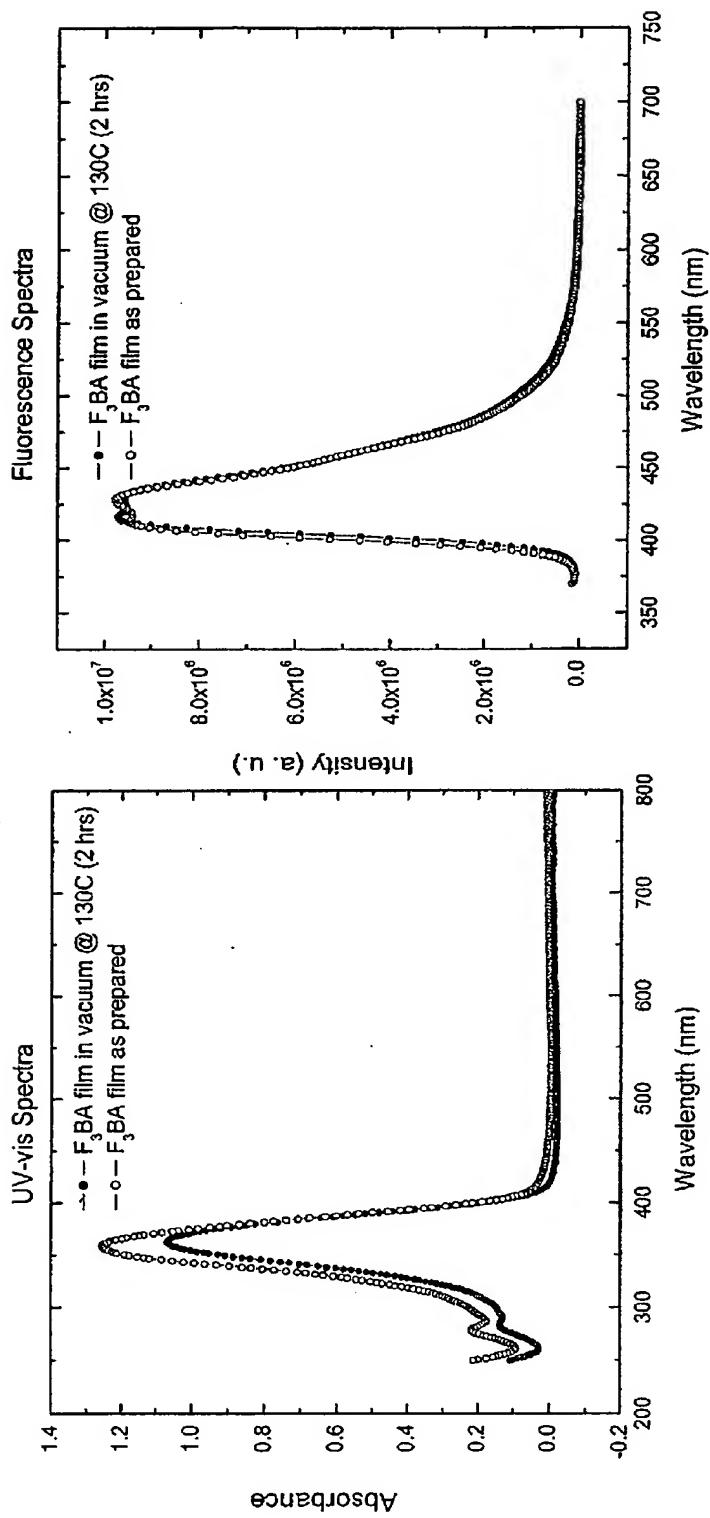


Fig. 3

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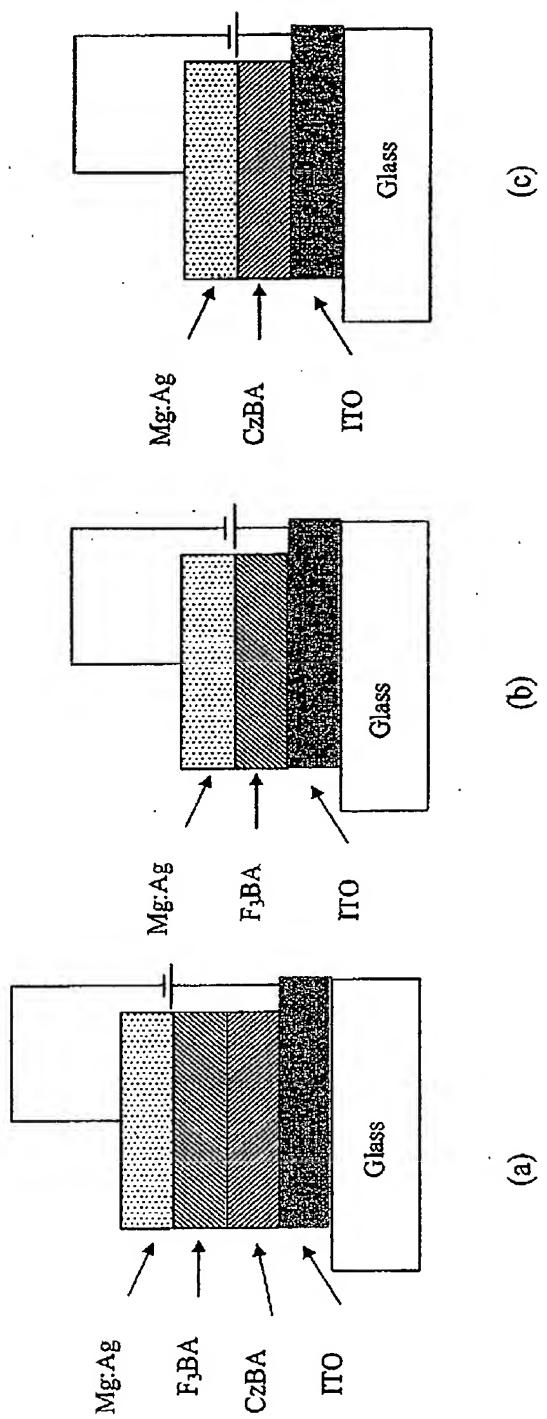


Fig. 4

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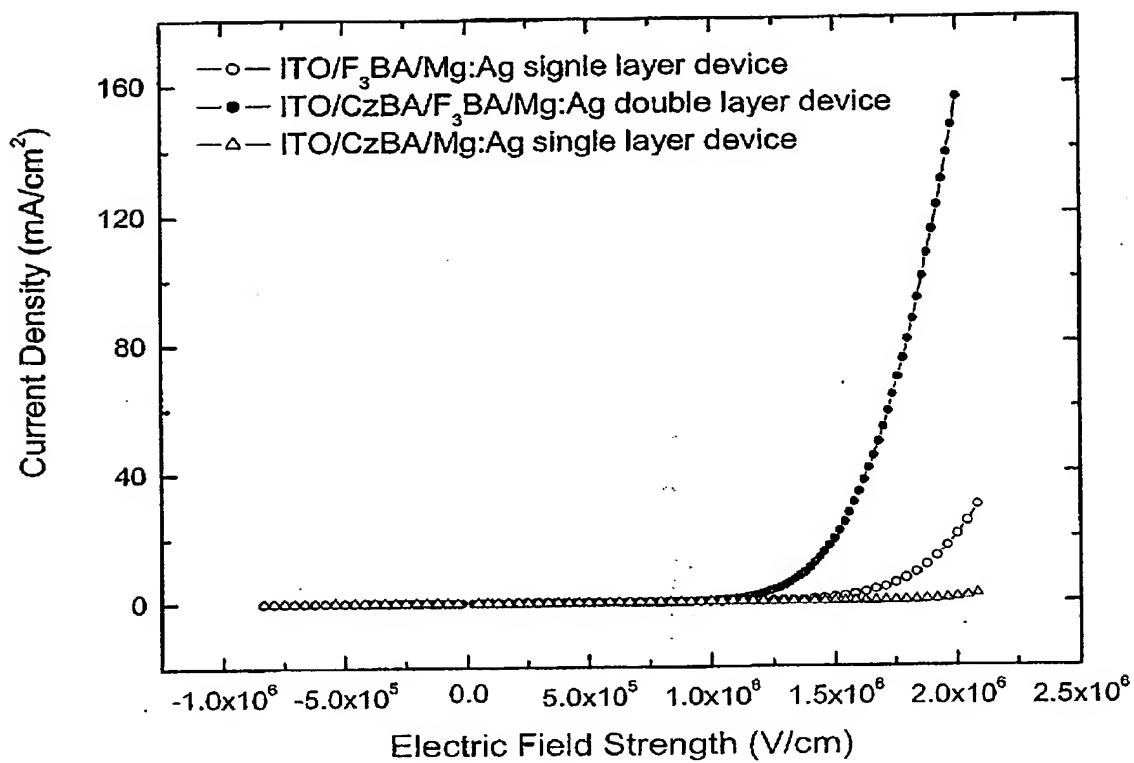


Fig. 5

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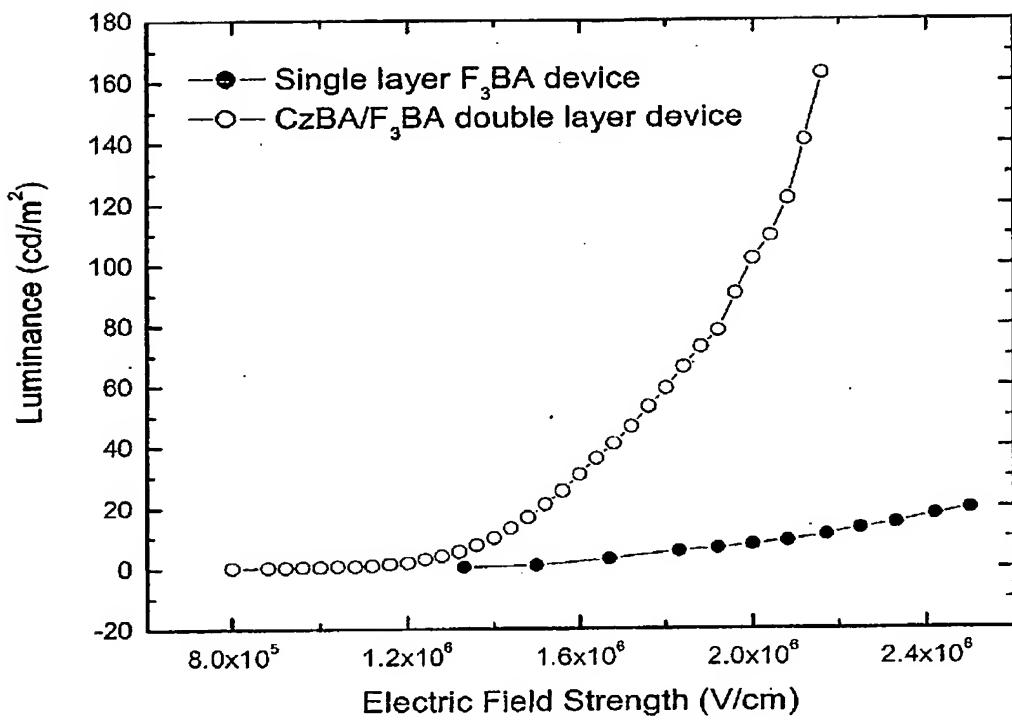


Fig. 6

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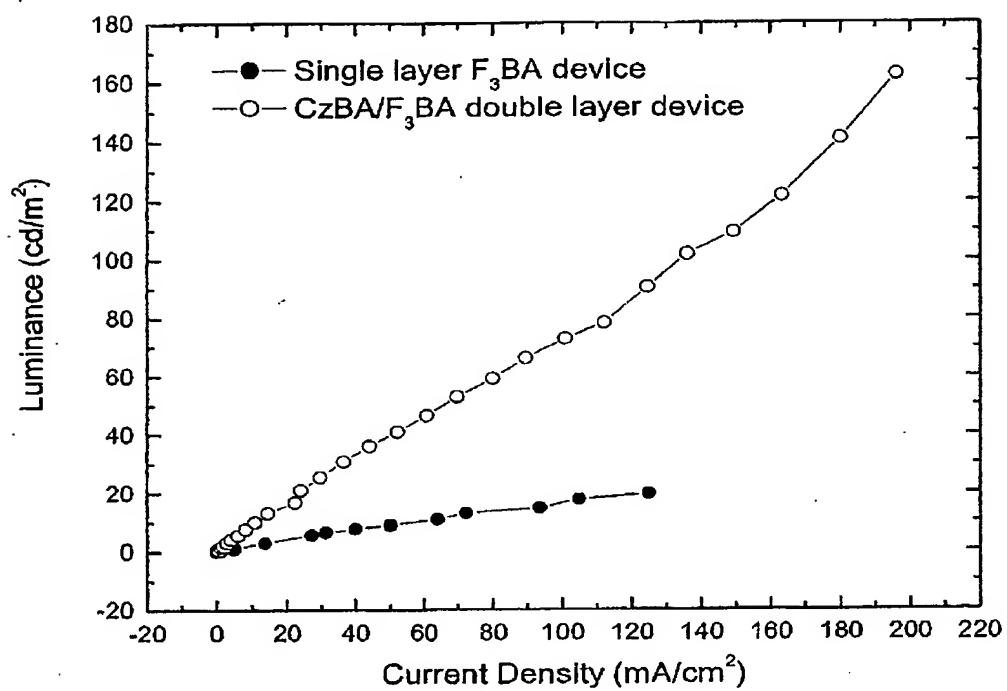


Fig. 7

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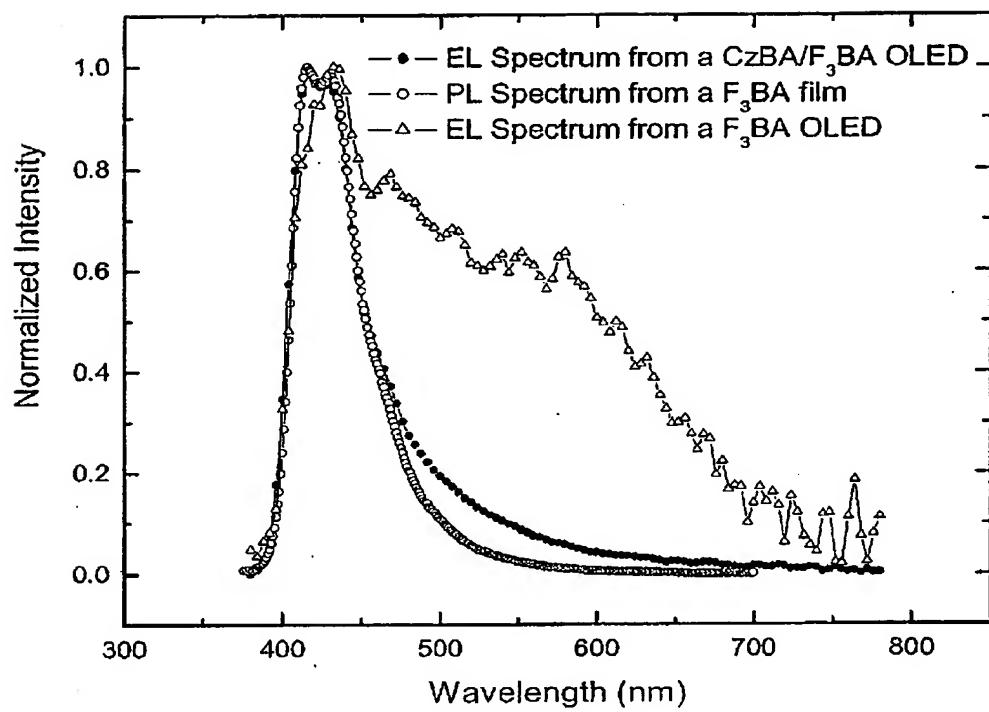


Fig. 8

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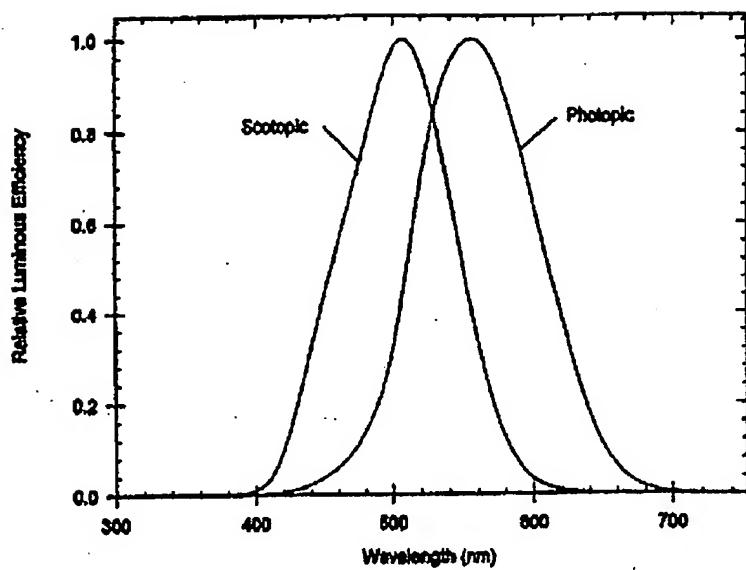
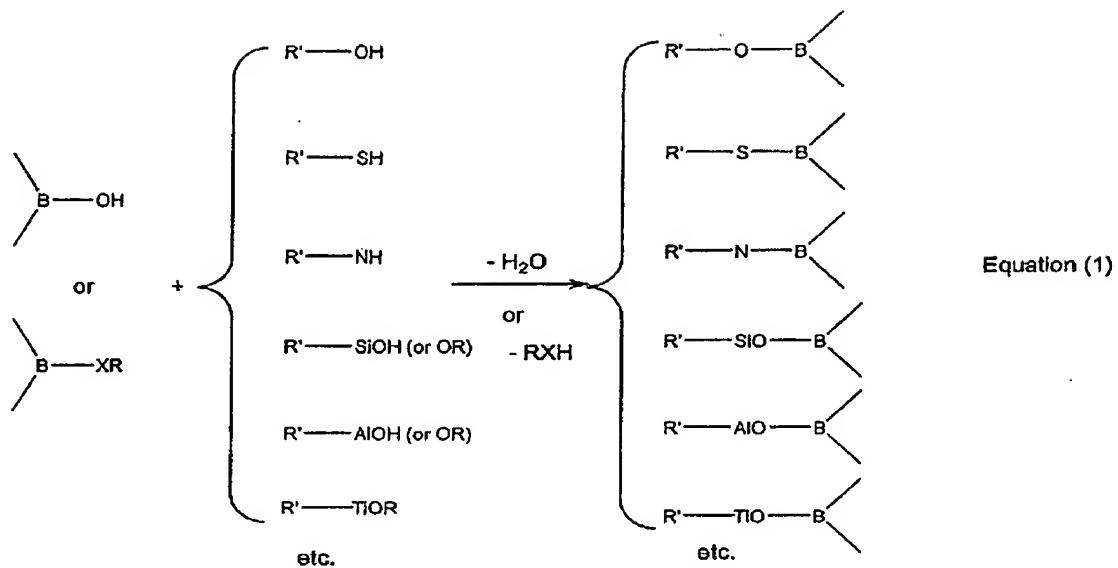
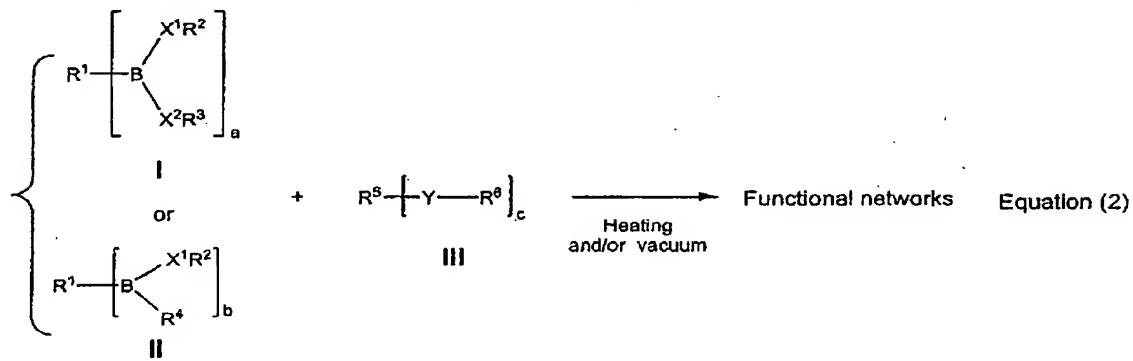


Fig. 9

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wherein, $\text{X} = \text{O}, \text{S}, \text{N}$; R and $\text{R}' = \text{alkyl, aryl, or any other organic and inorganic structures or groups}$.



wherein,

R^1, R^4 , and $\text{R}^5 = \text{alkyl, aryl, or other groups, either organic or inorganic, but at least one of them contains functionality; they can be of small molecular weights or high molecular weights.}$

$\text{R}^2, \text{R}^3, \text{R}^6 = \text{H, alkyl, aryl, they may be same or different, but at least one of them is H.}$

$\text{X}^1, \text{X}^2 = \text{O, S, or N, they may be same or different.}$

$\text{Y} = \text{O, S, N (or NH), SiO, AlO, TiO, etc.}$

a, b, c are equal to or larger than one, but at least either a (or b) or c is larger than one.

Fig. 10

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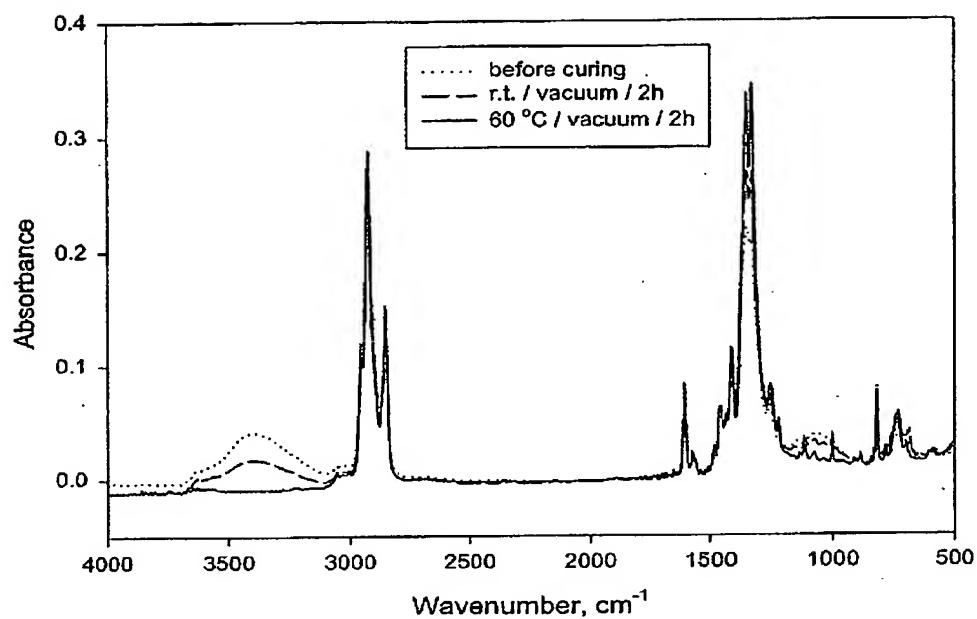


Fig. 11

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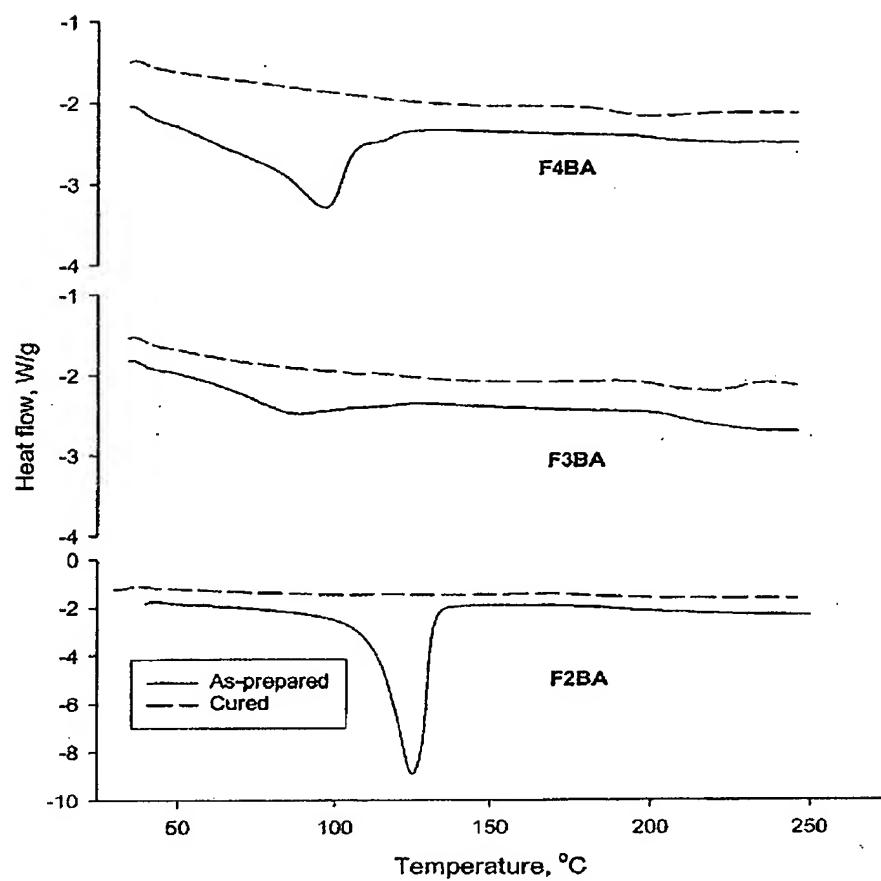


Fig. 12

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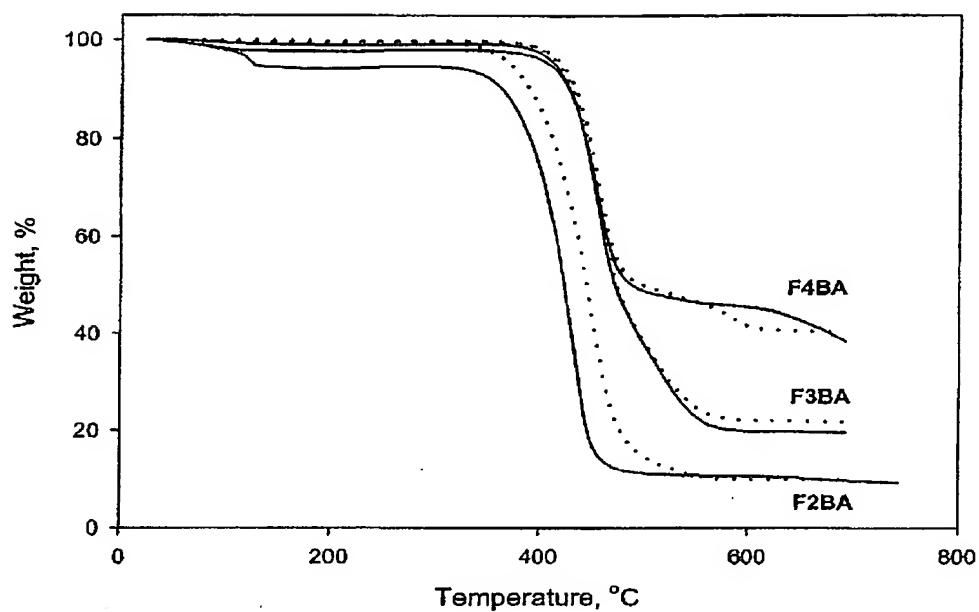


Fig. 13

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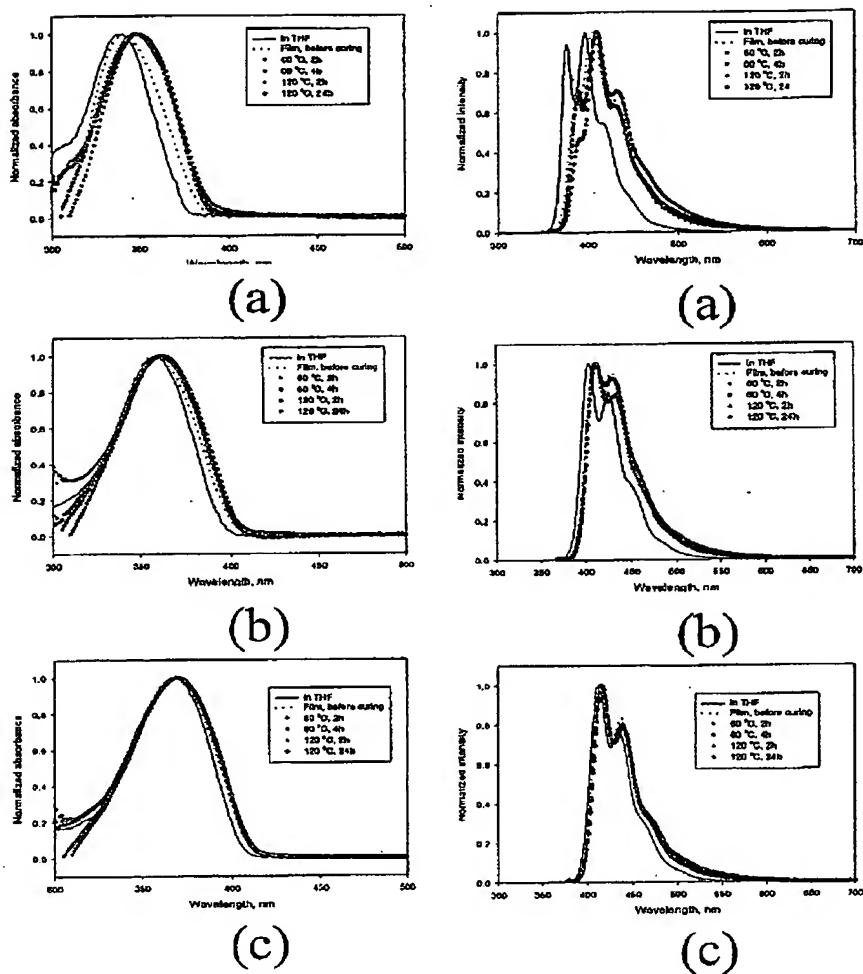


Fig. 14

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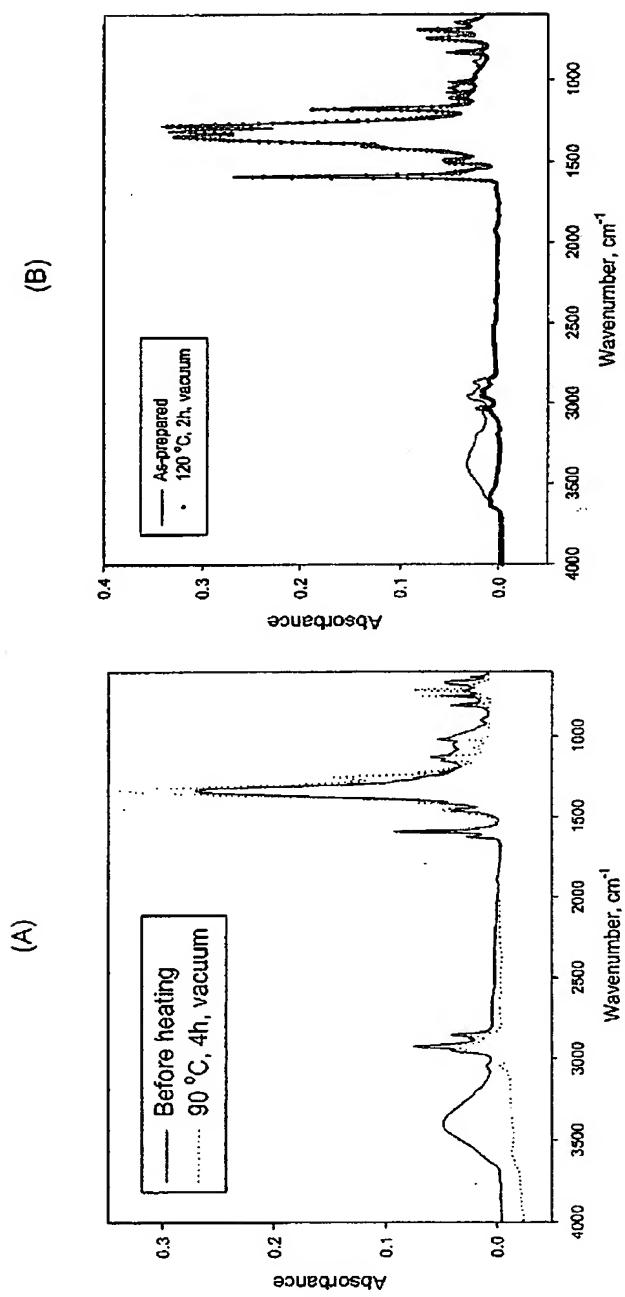


Fig. 15

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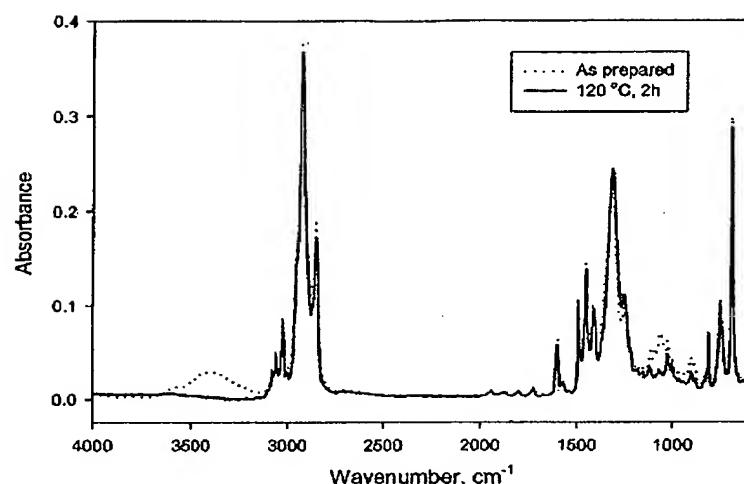


Fig. 16

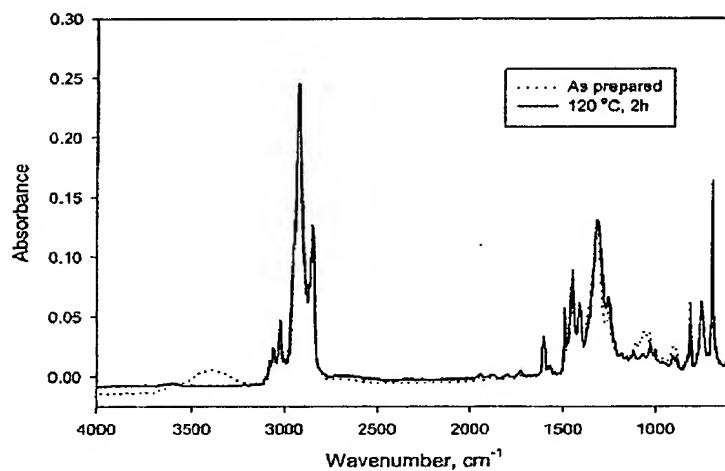


Fig. 17

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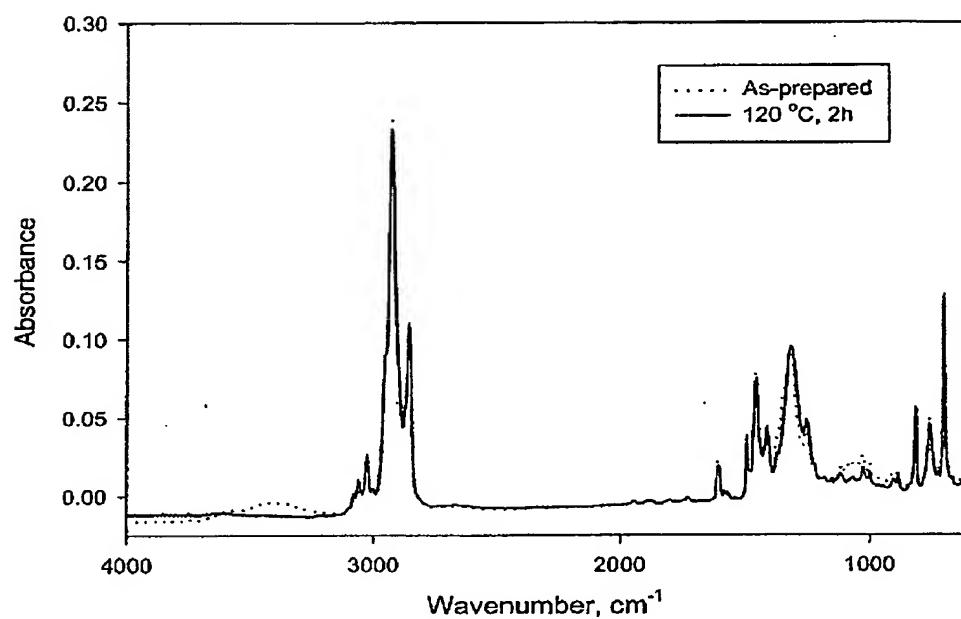


Fig. 18

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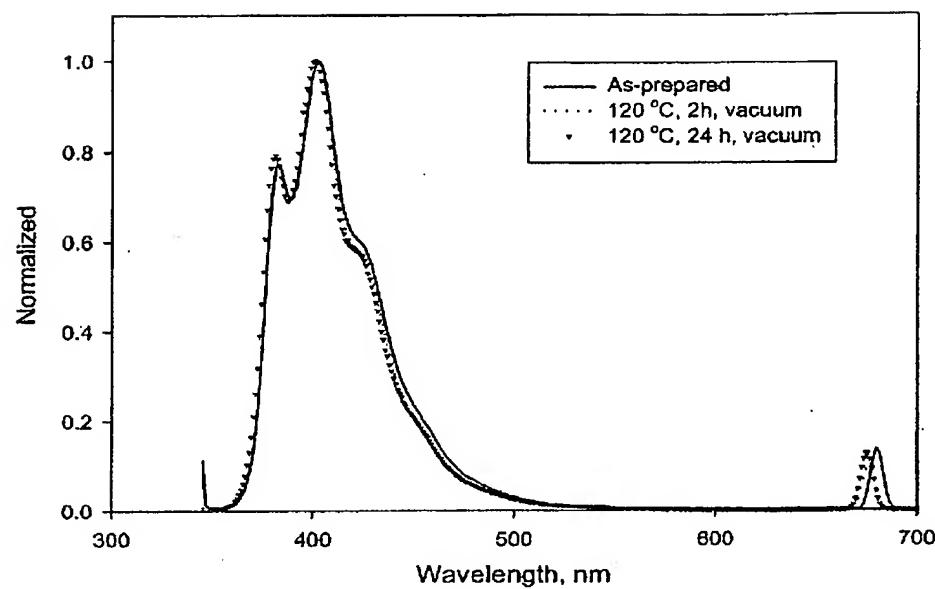


Fig. 19

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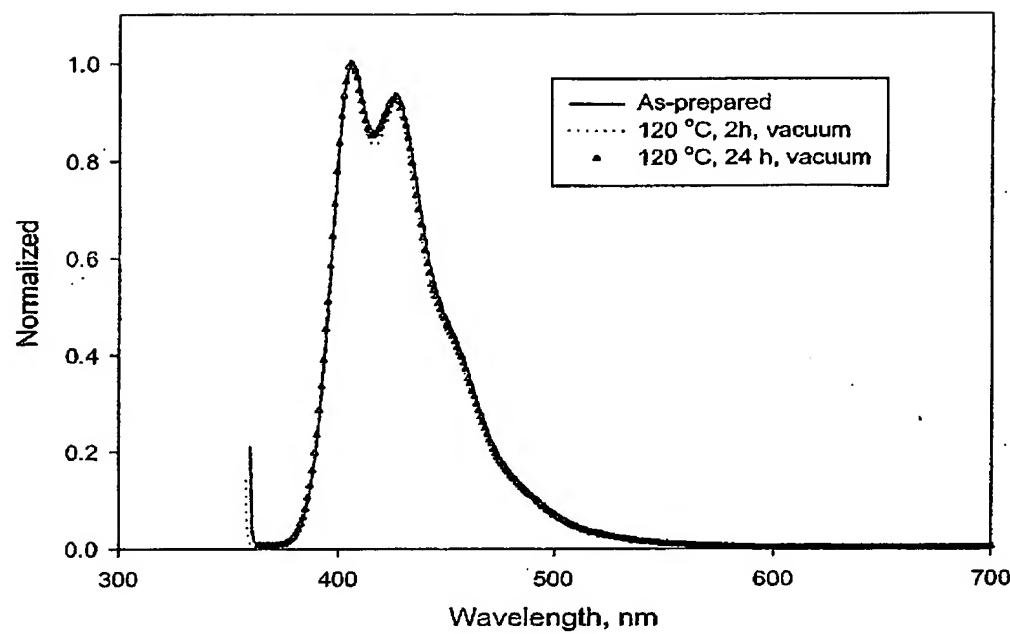


Fig. 20

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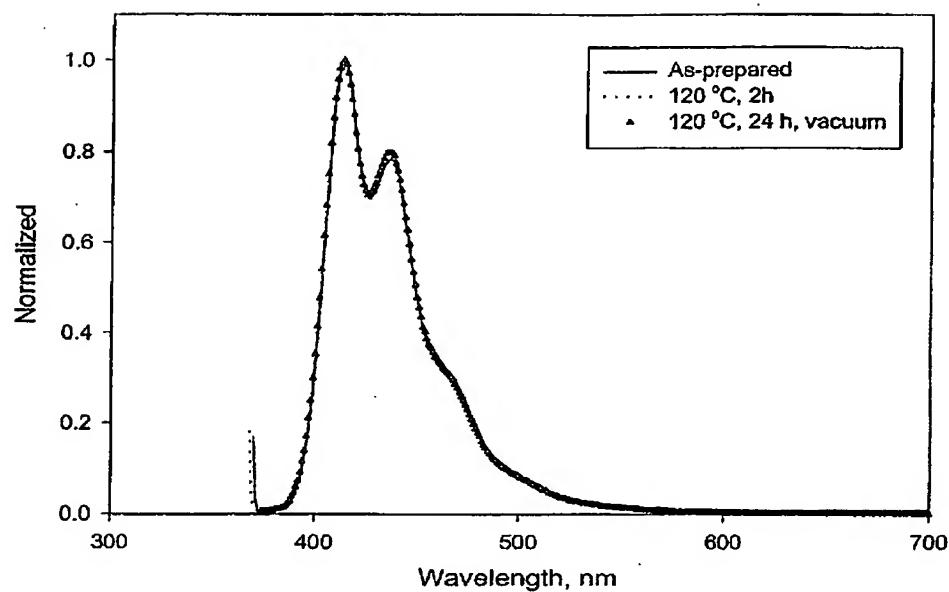


Fig. 21

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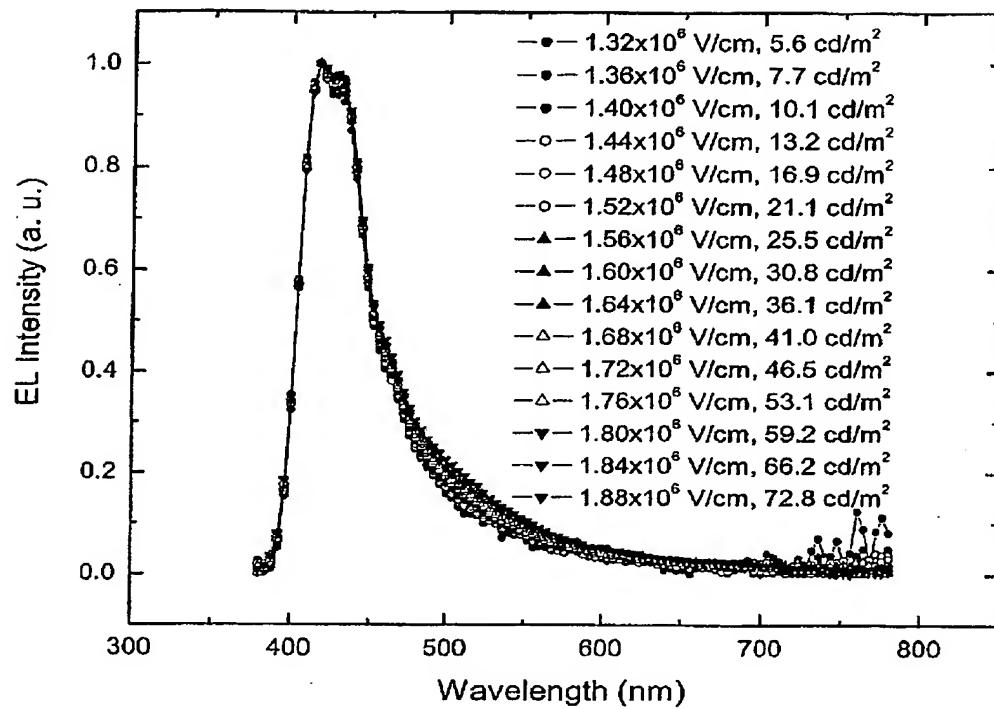


Fig. 22